

REMARKS

This is in response to the Office Action mailed July 14, 2004. In that Office Action, the drawings were objected to for failing to include labels for some of the block diagrams.

Claims 1, 3-8 and 13 were objected to for including reference characters that were not enclosed in parentheses. Claims 1, 9, 10, 11 and 12 were objected to for informal reasons.

Claim 9 was rejected under 35 USC §112, first paragraph, for being based on a disclosure which, in the opinion of the Examiner, was not enabling, and Claims 4, 5, 7 and 13 were rejected under 35 USC §112, second paragraph, for not including sufficient antecedent support for certain terms in the claims.

Finally, Claim 12 was rejected under 35 USC §102(b) as being anticipated by U.S. Patent No. 5,488,478 to Bullock et al., and Claims 1-3, 6-11 and 13 were rejected under 35 USC §103 as being unpatentable over Bullock et al. in view of U.S. Patent No. 5,592,246 to Kuhn et al.

By this Amendment, Applicants have amended the drawings to include labels for the blocks in Figures 1 and 4. Also, the claims have been amended to remove reference numerals, and to address the claim objections and the rejections under 35 USC §112.

With respect to the rejections based on the prior art, Applicants submit that the claims, as amended, are novel and would not have been obvious in view of the cited art. The measuring system of the present application is not calibrated by introducing a physical reference plane, i.e., by pushing a "calibration table" into the sight of the projector and the camera. Instead, in accordance with the present invention, a reference plane can be created that is computationally based on measuring the geometry of arbitrary fixing points. This way, by using reference points that are given in the measuring system, for example, the edges of certain points inside of the projector and the camera, and then using these points to generate a reference plane, the effort required to calibrate the system can be greatly reduced. In accordance with the present invention, there is no need to push a reference table into the sight of the camera and the projector. U.S. Patent No. 5,488,478 to Bullock et al. does not disclose such a method and system of calibration. Accordingly, the method recited in Claim 12 of the present application is novel over Bullock et al.

In addition, Claims 1-3, 6-11 and 13 would not have been obvious based on Bullock et al. in view of Kuhn et al. U.S. Patent No. 5,592,246 to Kuhn et al. relates to a device for generating and displaying a three-dimensional map of the

anterior and posterior surfaces of a transparent object, such as a patient's cornea. The disclosure in the '246 Kuhn et al. patent relates to devices for use with patient treatments and medical devices. In short, Applicants respectfully submit that Kuhn et al. is not analogous prior art, and in no way would one of ordinary skill be motivated to even look to Kuhn et al. Moreover, the Kuhn et al. system relies on a light detector position to receive reflections of the pattern from the anterior surface and from a posterior surface of a transparent object. In contrast, the object to be measured in accordance with the present invention is a metal strip. Light projected on the surface of a metal strip will never progress to a posterior surface of the metal object. Thus, the light detector, according to Kuhn et al., will never receive reflections from the posterior surface of a metal strip.

For one to combine the reference of Bullock et al. with the disclosure in Kuhn et al., he would have to look to a system that has nothing to do with measuring the geometry of a metal strip, but instead deals with measuring transparent objects in an unrelated field. Thus, as noted, Kuhn et al., it is doubtful that one of ordinary skill in the art would have even considered Kuhn et al. relevant to the problem at hand.

Applicants submit that the cited references must be read as a whole and that picking and choosing from within a reference in order to make a combination is inappropriate. For purposes of combining references, the references must be considered for all that they disclose and the Office is not allowed to pick and choose from among the individual elements within the disclosure. (See Smith Kline Diagnostics, Inc. v. Helena Laboratories Corp. 859 F.2d 878, 8 USPQ 2d, 1468 (Fed. Cir. 1988)). For this additional reason, Applicants respectfully submit that one of ordinary skill in the art would not have made the combination suggested by the Office.

Applicants acknowledge the objections to the specification. A substitute specification arranged in the preferred format will be submitted in due course.

For these reasons, Applicants submit that the claims, as amended, are novel and would not have been obvious in view of the cited art. Reconsideration and allowance of such claims are respectfully requested.

Respectfully submitted,



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